Second Quarter 2000 Water Level Measurements (Chester)

CHESTER ENGINEERS

Ref. No. 5331-05

June 13, 2000

Mr. Matt Augustine
Environmental Health and
Safety Engineer
GE Company - Bridgeville Glass Plant
Mayer Street
Bridgeville, Pennsylvania 15017

Dear Mr. Augustine:

Re: GE - Bridgeville
Second Quarter 2000 Water Level Measurements

As part of the present groundwater monitoring program, second quarter water level measurements were conducted at all site monitoring wells on June 9, 2000. Water levels within the groundwater collection sump and of Chartiers Creek were also measured. The attached table is a summary of these measurements and calculated elevations. The condition of each monitoring well was also noted during this activity.

If you have any questions or comments, please do not hesitate to contact me at 412-269-5824.

Sincerely,

Douglas M. Dusbiber
Senior Geologist

DMD/sw-728

Enclosure

cc/enc: Russell Schlecht, RMT

600 Clubhouse Drive
Pittsburgh, Pennsylvania 15108
412-269-5700; Fax 412-269-5749

TABLE 1

GROUNDWATER ELEVATIONS AND TOTAL WELL DEPTHS
GE LIGHTING COMPANY
BRIDGEVILLE PLANT

June 9, 2000

WELL IDENTIFICATION	PVC RISER ELEVATION (ft, NGVD)	DEPTH TO GROUND-WATER (ft)	GROUNDWATER ELEVATION (ft, NGVD)	MEASURED TOTAL DEPTH FROM TOP OF CASING (ft)	WELL CONDITION AND OBSERVATIONS
MW-1R	804.85	5.17	799.68	24.83	1 bolt flange stripped, water in pro-casing
MW-2	815.87	16.46	799.41	38.87	Top of PVC casing starting to chip
MW-3	803.55	6.10	797.45	22.89	Good condition, water in pro-casing
MW-4	805.87	9.97	795.90	24.82	1 bolt flange stripped, silty @ bottom
MW-5	809.09	11.15	797.94	23.43	Good condition, water in pro-casing
MW-6RR	808.00	11.61	796.39	23.18	Good condition, silty @ bottom
MW-7	807.77	8.97	798.80	26.75	Bolt sheered off in flange, silty @ bottom
MW-8R	811.12	dry	---	10.85	1 bolt flange stripped
MW-8AR	811.22	12.26	798.96	27.85	1 bolt flange stripped, silty @ bottom
MW-9R	809.50	7.62	801.88	10.52	Bolt flanges stripped, water in pro-casing
MW-10	809.02	9.84	799.18	17.03	Good condition, water in pro-casing
MW-12	808.86	11.04	797.82	16.38	Good condition, water in pro-casing, silty @ bottom
MW-12A	809.06	13.84	795.22	25.02	Water in pro-casing
MW-14	809.55	11.16	798.39	11.25	Good condition
MW-15R	810.37	10.70	799.67	31.82	Good condition
MW-16	802.59	3.24	799.35	17.90	Good condition, silty @ bottom
MW-17	803.19	3.40	799.79	15.82	1 bolt flange stripped, silty @ bottom
MW-20	800.94	6.65	794.29	16.30	Good condition, silty @ bottom
MW-21	798.39	5.04	793.35	11.33	Good condition

OTHER LANDMARKS	ELEVATION (ft, NGVD)	DEPTH TO WATER (ft)	WATER ELEVATION (ft, NGVD)
Chartiers Creek (benchmark on steps)	804.86*	11.26	793.60
Groundwater Trench Sump	806.29	16.77	789.52

* Distance from benchmark to surface of Chartier's Creek.

Third Quarter – September 2000 Groundwater Monitoring Report (Chester)

CHESTER ENGINEERS

Ref. No. 5331-05

October 31, 2000

Mr. Matt Augustine
Environmental Health and Safety Engineer
GE Bridgeville Glass Plant
Mayer Street
Bridgeville, PA 15017

Mr. Russell Schlecht
RMT
74 Perimeter Center East
Suite 7400
Atlanta, Georgia 30346

Gentlemen:

Re: Final Copy of Third Quarter—September 2000 Groundwater Monitoring Report
GE Bridgeville Glass Plant, Bridgeville, Pennsylvania

Enclosed, please find a final copy of the Third Quarter—September 2000 Groundwater Monitoring Report for the GE Bridgeville Glass Plant.

If you have any questions or comments, please do not hesitate to contact me at (412) 269-5824 or e-mail at dusbiberd@usfilter.com.

Sincerely,

Douglas M. Dusbiber
Senior Geologist

DMD/sw-740

Enclosures

600 Clubhouse Drive
Pittsburgh, Pennsylvania 15108
412-269-5700; Fax 412-269-5749

General Electric Company

Bridgeville Glass Plant

Bridgeville, Pennsylvania

Third Quarter—September 2000 Groundwater Monitoring Report

October 2000

CHESTER ENGINEERS

General Electric Company
Bridgeville Glass Plant
Bridgeville, Pennsylvania

Third Quarter--September 2000
Groundwater Monitoring Report

October 2000

Prepared by: Douglas M. Dusbiber

Approved by: Robert W. Anderson, P.G.

Project No.: 5331-05

CHESTER
ENGINEERS

600 Clubhouse Drive · Pittsburgh, PA 15108
412-269-5700 · Fax 412-269-5749

THIRD QUARTER—SEPTEMBER 2000
GROUNDWATER MONITORING REPORT
TABLE OF CONTENTS

Page No.

TABLES

APPENDICES

BRIDGEVILLE GLASS PLANT
THIRD QUARTER--SEPTEMBER 2000
GROUNDWATER MONITORING REPORT

1.0 INTRODUCTION

Chester Engineers (Chester) was retained by GE Lighting (GE) to conduct the eighth year of quarterly groundwater monitoring at its Bridgeville, Pennsylvania facility as specified in the site's Hazardous and Solid Waste Amendments (HSWA) permit. The Bridgeville Glass Plant is located north of the City of Bridgeville, Pennsylvania, in Allegheny County. The plant is bounded to the north by Mayer Street, and Wheeling and Lake Erie railroad tracks; to the south and southwest by Chartiers Creek and a Conrail railroad track; and to the east by a partially abandoned former steel mill. GE's Glass Plant contains an inactive on-site landfill that is surrounded by nineteen existing monitoring wells. The sampling event was conducted in accordance with the site's revised Quality Assurance Project Plan (QAPP) prepared by Law Engineering and Environmental Services (LAW), dated October 1995, and approved by the Environmental Protection Agency (EPA).

The project scope was further revised in March 1998 as a result of EPA and LAW discussions and written correspondence. The sampling frequency and parameter list were reduced as a result of these revisions and these modifications were initiated during the first sampling event of 1998, as described in this report. In March 1999, RMT, Inc. of Atlanta, Georgia, began providing project oversight to GE. The following sections provide detailed descriptions of sampling procedures, field methodologies, and field quality control procedures.

2.0 FIELD METHODOLOGIES

The following sections provide detailed descriptions of the field equipment, supplies, and sampling methodologies used by the Chester field sampling team during this third quarter sampling event.

2.1 Presampling Activities

During the period of September 18 through September 21, 2000, Chester was on site to conduct the third quarter groundwater monitoring program of 2000. Prior to groundwater sampling, several activities were performed by Chester:

- Locations to be sampled or measured were reviewed and identified;
- The QAPP was reviewed as it relates to sampling activities;

- Field equipment was assembled and inspected to verify that equipment was in proper working order;
- Items unique to the project were obtained and inspected to ensure project adequacy and QAPP acceptance;
- Field equipment was properly calibrated;
- Laboratory sample bottles and coolers were inspected;
- The Field Log Book and Equipment Log Book were assembled (notes from this quarterly sampling event are included in Appendix A); and,
- Sampling schedule and well sampling sequence was established.

2.2 Groundwater Sampling

As of March 1998, thirteen monitoring wells are required to be sampled on a semiannual basis. Table 2 of the HSWA permit has been reproduced incorporating recent modifications and is included herein as Table 1. The well sampling sequence was established based upon past analytical results from the existing monitoring wells. The sampling sequence in order of clean to most contaminated was as follows: MW-15R (background), MW-1R (background), MW-2, MW-3, MW-21, MW-20, MW-7, MW-16, MW-12A, MW-17, MW-6RR, MW-4 and MW-8AR. Table 2 provides the list of analytical parameters that were analyzed, their respective method numbers, and the laboratory practical quantitation limits. Table 2 has been revised to incorporate recent revisions that became effective in March 1998.

2.2.1 Groundwater Sampling Equipment

The equipment, materials and supplies used during the groundwater sampling event were as follows:

- Disposable, one use, Teflon bailers were utilized for groundwater sample acquisition.
- Solinst water level indicator, Serial #12263, Model/Part #101-250 foot, P2 probe (stainless steel probe), graduated in feet and tenths.
- Digi-Sense digital pH/mV/ORP meter, Model #5938-00, Serial #L92001916.
- pH 4 buffer - Fisher #SB101-500 (expiration December 2001); pH 7 buffer - Fisher #SB107-500 (expiration December 2001); pH 10 buffer- Fisher #SB115-500 (expiration December 2001).
- Cole Parmer conductivity meter, Model 1481-55, Serial #1191168.
- Conductivity calibration fluid, expiration date 6/27/01, 996 umhos/cm.

- Digi-Sense/Cole Parmer, thermocouple thermometer, NIST traceable certified to four points, Model 8528-20, Serial #K92001616, certified on September 21, 2000.
- Laboratory provided Type II DI water and millipore water from EnChem, Inc.
- Laboratory prepared, certified clean, pre-preserved, and labeled sample containers provided by EnChem, Inc.
- Corning, 1-liter, disposable polystyrene filtration units, 90-mm diameter filters, 0.45 micron pore size, with Corning #25982 PF prefilters, 90-mm diameter.
- Gast, oil-less, vacuum pump, Model #ROA-P184-AA, 115 volts, Serial #LR37697.
- New polypropylene bailer cord, ¼-inch diameter, stored prior to use in a clean plastic bag.
- Disposable latex surgical gloves.

2.2.2 Groundwater Sampling Procedures

All sampling was completed using new, individually wrapped, disposable Teflon bailers. The procedure for sampling was as follows:

- The static water levels were measured in all monitoring wells (as specified on Table 1) with a clean water-level indicator (electronic water-level indicator) on the first day of the sampling program. A water level measurement of Chartiers Creek was also obtained from a benchmark located on the steel steps/platform that is located above the creek. In addition, the water level within the groundwater monitoring trench was also measured. Table 3 provides the measured static water levels, the measured total depth of each well and the calculated groundwater elevations based upon measurements collected on September 18, 2000;
- The water-level indicator tape was decontaminated between each well using the following procedure: Alconox and distilled water wash, distilled water rinse, and paper towel dry;
- Fluid volumes were then calculated for each well casing using the following formula:

  $v = 0.041\ hd^2$

  where h = feet of static water in casing

  d = inside diameter of well in inches;

- Initial field measurements were obtained for pH, specific conductivity and temperature. A minimum of three well volumes of water was then removed;
- Each volume of water removed from the well was measured for pH, specific conductivity, and temperature;
- The field parameters of pH, specific conductivity, and temperature were determined from a separate aliquot after the portable field instruments had been properly decontaminated and calibrated. A duplicate reading was taken on the initial field measurements.
- If the well had a low recharge rate and three volumes of water could not be removed, the well was purged until dry, and the low recharge rate was noted;
- The instruments were calibrated at the beginning and end of each day (when used) and when instrument readings would not stabilize. In addition, a calibration check was conducted at midday (or following the third well purge location) to ensure field instrument drift had not occurred (calibration measurements were recorded in the Equipment Log Book);
- Samples were collected 18 to 22 hours after purging was completed or the well purged to dryness;
- Samples were collected for the listed parameters in the following order as per Pennsylvania Department of Environmental Protection (PADEP) modifications;

  total metals
  dissolved metals
  pH

- The certified clean sample containers needing preservation were pre-preserved at EnChem, Inc. prior to the sampling event. Sample containers were filled to the neck of the container to within 10 percent of capacity to avoid loss of preservative;
- Samples for dissolved metals analyses were collected in a nonpreserved bottle and filtered immediately after collection through a separate, disposable, 0.45-micron filtration unit (as described in Section 2.2.1). The filtered sample was transferred into a pre-preserved bottle;
- The set samples were then checked for pH using pH strips to verify that the pH of each sample was <2;
- Bottle labels were completed in the field and sealed with clear plastic tape to avoid smearing of the label information. The type of sample (grab, composite), samplers' initials, project name and number, date

and time of sample collection (and filtration time where applicable), and type of preservative were included on each sample bottle label;

- Matrix spike (MS) and matrix spike duplicate (MSD) samples were collected from MW-20;
- A blind duplicate sample was collected from MW-2 and was designated as BRMW42;
- Sampling information was recorded within a project-dedicated Field Book and later transcribed onto Chester's standard Monitoring Well Purging Data sheets (Appendix B); and
- Samples were retained on ice (double bagged) and shipped in sealed coolers, priority overnight, at the end of each day to EnChem, Inc. in Madison, Wisconsin accompanied by the proper chain-of-custody documentation (Appendix C). A temperature blank was placed in each cooler containing groundwater samples. Two custody seals were placed on each cooler containing samples.

Purge water and excess sampling volume was contained in plastic, 30-gallon drums that were placed at each sampling location.

2.3 Composite Sampling

A new disposable Teflon bailer was used to collect a composite sample of water generated during purging activities. Composite sampling was conducted by collecting ½ of a bailer volume from each drum containing purge water and pouring the water into an empty, air dried, one-gallon container (EnChem, Inc. provided) that formerly contained Type II water. After mixing, a sample (BRDR60) for total metals, dissolved metals, and pH was collected on September 21, 2000. The sample for dissolved metals was filtered using the same procedure as that for the groundwater samples.

Upon confirmation that analytical results for the drum composite sample are below the criteria outlined in Allegheny County Sanitary Authority permit, GE discharges the purge water to the facility sanitary system.

2.4 Field Observations and Events

Observations made by the Chester field personnel and events during the third quarter of the groundwater sampling program were as follows:

- The observed water turbidity was low to moderate in monitoring wells MW-1R, MW-8AR, MW-12A, MW-15R, and MW-21 during well purging. The groundwater turbidity in monitoring wells MW-2, MW-3, MW-4, MW-6RR, MW-7, MW-16, MW-17 and MW-20 was moderate to high based upon visual examination during well purging.

- Several of the flush-mounted covers continue to have stripped or broken bolt flanges. These wells include MW-1R, MW-4, MW-7, MW-8AR, MW-8R, MW-9R, and MW-17. It is recommended that these covers should be fixed or replaced as soon as possible.
- A field audit of Chester's monitoring activities was performed by RMT on September 19, 2000. The purpose of the audit was to verify that sample collection and documentation was being performed in accordance with the project specific QAPP.

2.5 Exceptions to the Project QAPP and Corrective Actions

The most recent modifications to the sampling program that occurred in March 1998 have not been revised within the QAPP document to date but have been revised in the HSWA permit. These modifications included a reduction in sampling frequency to semiannual and a reduction in the analytical parameter list to total metals, dissolved metals, and pH.

Also, disposable Teflon bailers have been used for well purging and sample collection since the 1998 sampling events. This item is an exception to the project QAPP that has occurred during each of sampling events since that time.

3.0 QUALITY CONTROL REQUIREMENTS

The laboratory analyses included the following samples for purposes of quality control, as specified by the project QAPP:

- Analysis of one rinsate blank (BRRB30);
- Analysis of one field blank (BRFB40);
- Analysis of one filtration blank (BRMMFB50);
- Analysis of one matrix spike and one matrix spike duplicate from monitoring well MW-20 (BRMW20-MS and BRMW20-MSD) and;
- Analysis of one blind duplicate (BRMW42) collected at MW-02.

The rinsate blank, BRRB30, was collected on September 19, 2000, directly from an unused Teflon disposable bailer that was discarded after rinsate blank collection. Collection of the rinsate blank samples was conducted in a first floor conference room of the GE glass plant, where sample filtration is performed. This Teflon disposable bailer was removed from its plastic covering, its bailer top removed, and was filled with Millipore water that was then transferred into the respective sample bottles. The rinsate blank is designed to provide information on the cleanliness of the sampling equipment. This sample was analyzed for the same parameters as the groundwater samples from the monitoring wells. The dissolved metals sample was filtered following the same procedure as groundwater samples from the monitoring wells.

The field blank, BRFB40, was collected at the location of monitoring well MW-12A on September 21, 2000. The sample bottles were filled directly from the Millipore water containers provided by the laboratory to expose the water to the ambient air conditions that the sample is exposed to during sampling activities. This sample was analyzed for the same parameters as the groundwater samples from the monitoring wells. The dissolved metals sample was filtered following the same procedure as groundwater samples from the monitoring wells.

The filtration blank, BRMMFB50, was collected by filtering Millipore water through a separate, disposable, 0.45-micron filtration unit on September 19, 2000. This sample filtration was performed through a new filter unit. This sample was analyzed for dissolved metals only.

The matrix spike (MS) and matrix spike duplicate (MSD) samples, BRMW20MS and BRMW20MSD, were collected as duplicate sample volumes from monitoring well MW-20 at the time of groundwater sampling from this well (September 20, 2000). These samples were spiked by the laboratory and analyzed for the same parameters as the groundwater samples from the monitoring well.

The blind field duplicate sample, BRMW42, was collected as a duplicate sample volume from monitoring well MW-02 at the time of groundwater sampling from this well (September 19, 2000).

TABLES

TABLE 1

SITE MONITORING PROGRAM(a)
GE LIGHTING COMPANY
BRIDGEVILLE PLANT

MONITORING WELL	FREQUENCY	PARAMETERS
Performance Monitoring Wells (wells screened in fill materials)		
MW-5 MW-8 (reinstalled)(b) MW-9 (reinstalled) (b) MW-10 MW-12 MW-14 (reinstalled)	Quarterly	Groundwater Elevation
Alluvial Groundwater Quality Monitoring Wells	Quarterly	Groundwater Elevation
MW-1 (background - reinstalled) MW-3 MW-4 MW-6RR (third installation)(c) MW-7 MW-8A (reinstalled) (b) MW-12A MW-15 (background - reinstalled) MW-20	Semi-Annual 1st/3rd Quarters	Arsenic* Barium* Cadmium* Chromium* Lead* pH
Supplemental Groundwater Quality Monitoring Wells	Quarterly	Groundwater Elevation
MW-2 MW-16 MW-17 MW-21 (b)	Semi-Annual 1st/3rd Quarters	Arsenic* Barium* Cadmium* Chromium* Lead* pH

* Total and Dissolved Constituent Concentrations

(a) Monitoring frequency and parameter list reduced based upon EPA/LAW Environmental revisions in March 1998.

(b) These wells were installed prior to the third quarter sampling event of 1994.

(c) This well was installed prior to the third quarter sampling event of 1998.

TABLE 2

LIST OF GROUNDWATER MONITORING PARAMETERS
GE LIGHTING COMPANY
BRIDGEVILLE PLANT

ANALYTICAL PARAMETERS	EPA METHOD SW-846	PRACTICAL QUANTITATION LIMITS (1) (mg/l)
Arsenic*	7060	0.005
Barium*	6010	0.02
Cadmium*	6010	0.005
Chromium*	6010	0.05
Lead*	7421	0.005
pH	9040	Not Applicable

(1) As per Table 1.3 of the revised QAPP (see note 2 below)
* Total and Dissolved
Notes:
1) Analytical Methods for Chemical Analysis of Water and Waste, EPA 600/4-79-020, 198
2) Parameter list reduced based upon EPA/LAW Environmental revisions in March 1998.

TABLE 3

GROUNDWATER ELEVATIONS AND TOTAL WELL DEPTHS
GE LIGHTING COMPANY
BRIDGEVILLE PLANT

September 18, 2000

WELL IDENTIFICATION	PVC RISER ELEVATION (ft, NGVD)	DEPTH TO GROUND-WATER (ft)	GROUNDWATER ELEVATION (ft, NGVD)	MEASURED TOTAL DEPTH FROM TOP OF CASING (ft)	WELL CONDITION AND OBSERVATIONS
MW-1R	804.85	5.48	799.37	24.83	water in pro-casing, (1)
MW-2	815.87	16.79	799.08	38.88	Top of PVC casing starting to chip
MW-3	803.55	6.44	797.11	22.89	water in pro-casing
MW-4	805.87	10.15	795.72	24.71	water in pro-casing, silty @ well bottom, (1)
MW-5	809.09	11.46	797.63	23.44	water in pro-casing
MW-6RR	808.00	11.83	796.17	23.00	water in pro-casing, very silty @ well bottom
MW-7	807.77	9.57	798.20	26.73	(1)
MW-8R	811.12	dry	---	10.85	water in pro-casing, (1)
MW-8AR	811.22	12.51	798.71	25.95	water in pro-casing, silty @ well bottom, (1)
MW-9R	809.50	7.92	801.58	10.51	water in pro-casing, (1)
MW-10	809.02	9.86	799.16	17.04	water in pro-casing
MW-12	808.86	11.76	797.10	16.39	water in pro-casing, silty @ well bottom
MW-12A	809.06	13.94	795.12	25.03	water in pro-casing, silty @ well bottom
MW-14	809.55	11.12	798.43	11.26	good condition
MW-15R	810.37	11.04	799.33	31.81	silty @ well bottom
MW-16	802.59	6.45	796.14	17.91	water in pro-casing, very silty @ well bottom
MW-17	803.19	3.55	799.64	15.91	water in pro-casing, silty @ well bottom, (1)
MW-20	800.94	6.56	794.38	16.26	silty @ well bottom
MW-21	798.39	4.30	794.09	11.33	mud on standpipe, well was likely submerged at some earlier time

OTHER LANDMARKS	ELEVATION (ft, NGVD)	DEPTH TO WATER (ft)	WATER ELEVATION (ft, NGVD)
Chartiers Creek (benchmark on steps)	804.86*	11.12	793.74
Groundwater Trench Sump	806.29	16.80	789.49

* Distance from benchmark to surface of Chartier's Creek.
(1) Flush-mounted cover has stripped or broken bolt

APPENDIX A
FIELD LOG AND EQUIPMENT LOG NOTES

FIELD LOG BOOK NOTES

GE Bridgeville 6-9-00
2nd qtr. water level measurements
D. Dusbiber & Tom Licher

Time	Well	T.O.C	T.D.	Condition
1210	15R	10.70	31.82	Good
1212	1R	5.17	24.83	Good
1217	2	16.46	38.87	chipped riser TOC Good
1246	3	6.10	22.89	Good
1234	21	~~5.04~~ dry	11.33	Good
1252	20	6.65	16.30	Good
1300	7	8.97	26.25	Good
1306	16	3.24	17.90	silty
1314	10A	13.84	25.02	Silty
1322	17	3.40	15.82	Silty
1330	6RR	11.61	23.18	Silty
1340	4	9.97	24.82	silty
1402	8AR	12.26	27.85	silty
1410	9R5	11.15	23.43	good
1417	10BR	DRY	10.85	good.
1425	10	9.84	17.03	good
1430	14R12	11.04	16.38	good
1435	14R	11.16	11.25	good
1440	Gw Trend	16.77	[illegible]	
1445	Creek	11.26		
1418	~~8~~ 9R	7.62	10.52	good

GE Bridgeville 9-18-00
3rd Qtr. Sampling Event
Onsite personnel: Doug Dusbiber & Tom Licher
Weather 60°F, clear, lt. wind
Pick-up vehicle and equipment arrive at site @ 0940 hrs.
Water short H2S video
- Will use solinst water level meter to measure SWLs
- Water level tape & probe will be cleaned w/ Alconox mixture & D.I. water and rinsed. Apply w/ squirt bottles and wipe dry w/ paper towels. after each use
- A new pair of latex gloves will be worn @ each well.
- Well condition will be noted
- Water level measurements will follow well sampling sequence
- Water will be removed from protective casing prior to removing well cap.

Time	Well	WL	T.D	Cond
1029	15R	11.04	31.81	good, silty
1032	1R	5.48	24.83	good, water
1038	2	16.79	38.88	good, chipped
1107	3	6.44	22.89	good, water.
1055	21	4.30	11.33	good, stand pipes been submerged
1112	20	6.56	16.26	silty, good
1121	7	9.57	26.73	good, broken bolt
1130	16	6.45	17.91	v. silty, water
1137	12A	13.94	25.03	good, water
1242	17	3.55	15.91	silty, water
1250	6RR	11.83	23.00	v silty, water
1259	4	10.15	24.71	silty, water
1305	8AR	12.51	25.95	silty, water
1312	5	11.46	23.44	good, water
1318	8R	dry	10.85	missing, bolt, other stripped broken bolt flange, water
1322	9R	7.92	10.51	
1326	10	9.86	17.04	good, water
1334	12	11.76	16.39	silty, water
1338	14	11.12	11.26	good
1344	G.W. Trend	16.80		
1341	Creek	11.12		

1145 Broke for lunch
1230 Returned from lunch

Purge MW-15R
TD 31.81
WL 11.04
20.77

1 vol = 0.041 x hd²
= 0.041 x 20.77 (4)
= 3.40
3 vol. = 3.4 X 3 = 10.2 gals

	pH	SC	T	Turb/color
Init 1	5.97	185 µs	17.1°c	clear
2	6.02	0.71 ms	17.5°c	"
1 Vol.	6.30	0.70 ms	17.0°	"
2 Vol.	6.36	0.71 ms	16.8°	"
3 Vol.	6.47	0.68 ms	17.0	"

Start : 1422
End : 1450
Slight septic odor

MW-1R
TD 24.83
WL 5.48
19.35

1 vol. = 0.041 x hd²
= 0.041 x 19.35 (4)
= 3.2
3 vol = 3.2 x 3 = 9.6

	pH	SC	T	Turb/color
Init 1	6.41	.80	18.1	Yellow
2	6.41	.80	18.2	Yellow
1 vol.	6.29	.80	16.4	Yellow/orngs.
2 vol.	6.26	.77	16.4	Clear
3 vol.	6.27	.80	16.4	Clear

Start 14:50
End 15:10

MW-2
TD 38.88
WL 16.79
22.09

1 vol. = 0.041 x hd²
= 0.04 x 22.09 (4)
= 3.6 gal
3 vol. = 3.6 x 3 = 10.8

	pH	SC	T	Turb/color
Init 1	6.55	0.88ms	16.8	Clear
2	6.42	0.85	16.9	"
1 vol.	6.61	0.85	16.5	high/lt brn
2 vol.	6.55	0.41	16.5	"
3 vol	6.58	040	16.7	"

Start: 15:40
End: 16:10

Off-site 16:30

Tony Durfee

Chester Personnel: Doug Dusbiber & Tom Licken
Arrived on-site 0800 hrs.
Weather: Cloudy, 55° F.

~~Sam~~ Purchased ice, tape, and freezer bags

Sampled MW-15R for T. Metals, Dissolved Metals, and pH (BRMW15R)
Start 0900
End 0902

Bailers were left in place in MW-15R as well as the other 2 wells purged yesterday

Filtered BRMW-15R @ 0905

- Filters are rinsed w/ Millipore H_2O (lab provided) prior to sample filtration

- All bottles are prepared and pre-preserved by ENCHEM

- Tom Licken checking pH of HNO_3 preserved samples w/ litmus paper. All should be < 2

- For dissolved metals samples, the sample is first collected in an unpreserved plastic ½ liter, filtered and then transferred into an HNO_3 set bottle (½ liter plastic)

Sampled MW-1R for T. Metals, D. Metals, and pH (BRMW01R)
Start: 0925
End: 0927

Filtered @ 0932

- Collected Filtration Blank sample in conference room (CBRMMFB50). Poured Millipore water directly into filtration unit. Filtered water and collected in 500 ml plastic HNO_3 preserved bottle
  Start: 0945 End: 0945

  Filtered @ 0946

- Collected Rinsate Blank in conference room (CBRRR30) Mill. pore water poured into new disposable Teflon bailer and transferred into complete bottle set. Dissolved metals sample filtered per usual.

  Start 1000 End 1001

Filtered @ 1003

- Collected sample @ MW-02 for T. Metals, Dissolved Metals, and pH (BRMW02)
  Start: 10950
  End: 1052

- Collected duplicate sample from MW-02 (CBRMW42)
  Start: "1200"
  End: "1202"

Filtered BRMW02 @ 1103

Filtered BRMW24 @ "1210"

Mark from RMT, Inc. arrived on-site @ ~1030hrs.

He is here to conduct a field audit of Chester.

(46) GE Bridgeville 9-19-00

Well Purging Equipment used this week includes:
- Polypropylene rope (new for each well)
- Disposable Teflon bailers (1/well)
- Plastic sheeting around each well
- 5-gallon buckets)

Plastic sheeting is placed around each well head prior to purging. New latex gloves ~~are worn~~ also used at each well location. Field measurements (pH, SC, & Temp) are collected at the start of purging and after each well volume. A duplicate measurement will be taken on the first bailer volume removed.

Called FedEx for Pickup Conf. # 150

Purge MW-03

22.89
6.44
16.44

1 Vol = 0.041 x hd²
= 0.041 x 16.44 (2)²
= 2.700
3 Vol = 2.700 x 3 = 8.1

	pH	SC	Temp	Turb/color
Init	6.21	1.6 mS	17.6°C	clear/yellowish
2	6.39	1.7	17.7	"
1 Vol	6.35	1.5	16.4	mod./brownish
2 Vol	6.57	1.6	16.0	"
3 Vol				

Start 1320
End 1345

Well dry at ~ 2 Vols or 5.5 gals. Well stabilized after 2 Vols.

Purge MW-21
TD 11.33
WL 4.20
7.13

1 vol = 0.041 x h d²
= 0.041 x 7.13 (2)²
= 1.2 gals
3 vol = 3.6 gals

	pH	sc	T	Turb./color
Init. 1	6.63	1.8 ms	16.9	clear
2	6.70	1.8	17.2	"
1 vol	6.68	1.8	15.7	mod./brown
2 vol	6.65	1.8	15.6	"
3 vol	——			

Start: 1415
End: 1425

well dry @ 2 vols
or ~ 2.5 gals

RPDs ok

Purge MW-20
TD 16.26
WL 6.56
9.7

1 vol = 0.041 x d²
= 0.041 x 9.7 (2)²
= 1.6
3 vol = 1.6 x 3 = 4.8

	pH	sc	T	Turb./color
Init 1	6.67	1.7ms	30°	low/orange silt
2	6.77	1.7	29.9	"
1 vol	6.79	1.7	26.9	mod/orange
2 vol	6.90	1.7	25.8	"
3 vol	6.89	1.8	26.2	"

Start: 1445
End 1500

50 GE Bridgeville 9-19-60

Purge MW-7

TD 26.75
WL 8.97
17.78

1 vol = 0.041 x hd²
= 0.041 x 17.78 (2)²
= 2.9
3 vol = 2.9 x 3 = 8.7 gals

	pH	SC	T	Color/Turb
Init 1	6.34	1.5	16.4	Clear
2	6.35	1.5	16.5	Clear
1 vol.	6.65	1.5	16.5	Turbid Yellow
2 vol.	6.85	1.5	16.4	" yellow
3 vol.	6.83	1.5	16.3	" yellow

Start: 15-26
End: 15 47

51 GE Bridgeville 9-19-60

Purge MW-16

17.91
6.45
11.46

1 vol = 0.041 x hd²
= 0.041 x 11.46 (4)
= 1.9
3 vol = 5.7 gals

	pH	SC	T	Turb/color
Init 1	6.06	1.4	19.4	Turbid yellow
2	6.03	1.4	19.5	" "
1 vol.	6.06	1.4	21.5	Turbid "
2 vol.	6.15	1.5	20.5	Turbid Gray
3 vol.	6.23	1.5	20.1	Turbid Yellow

Start 15 50
END 16 15

GE Bridgeville 9-19-00

Purge MW-12A

TD = 25.03

WL = 13.94

11.09

1 Vol = 0.041 x Hd²

= 0.041 x 11.09 (2)²

= 1.8 gals

3 Vol = 1.8 x 3 = 5.4 gals

	pH	SC	T	Turb./Color
Init. 1	6.64	1.2	17.9	Clear w/Red
2	6.62	1.2	17.7	Suspended Solids
1 Vol	6.53	1.4	17.6	Clear w/Susp. Sd
2 Vol.	6.56	1.4	17.4	Clear / yellow
3 Vol.	6.64	1.3	17.4	Clear / Clear

Start: 1625

End: 1638

Off-site 1700 hrs

Doug Austin

Chesla Personnel: Doug Austin & Tom Licher

Arrived on-site @ 0800 hrs

Weather: clear, 60°F

Sampled MW-3 for T. Metals, Dissolved Metals, and pH (BRMW03).

Start: 0815

End: 0817

Filtered @ 0824

Sampled MW-21 for T. Metals, Dissolved Metals, and pH (BRMW21)

Start: 0840

End: 0842

Filtered @ 0853

Sampled MW-20 for T. Metals, D. Metals, and pH

Also collected MS & MSD samples from MW-20.

BRMW20
BRMW20MS
BRMW20MSD

Start: 0910
End: 0915

Filtered BRMW20 @ 0924
Filtered BRMW20MS @ 0926
Filtered BRMW20MSD @ 0928

Sampled MW-7 for T. metals D. Metals, and pH (BRMW07)

Start: 0940
End: 0942

Filtered @ 0945

Sampled MW-16 for T. Metals. Dissolved Metals, and pH (BRMW16)
Start: 1000 End 1002
Filtered sample @ 1005

Sampled MW-12A for T. Metals, Diss. Metals, and pH (BRMW12A)
Start: 1015 End: 1017
Filtered sample @ 1023

Purchased Ice and ~~ice~~ freezer bags
Packed coolers and completed COC
Called FedEx pick-up #119

56 GE Bridgewater 9-20-00

Purge MW-17

TD	15.91
WL	3.55
	12.36

1 vol = 0.041 x hd²
= 0.041 x 12.36 (2)²
= 2.0 gals
3 vol = 2.0 x 3 = 6 gals

	pH	SC	T	Turb./color
Init. 1	6.30	1.5 ms	18.0°C	low/clear
2	6.38	1.5 ms	18.1°C	"
1 Vol.	6.51	1.6 ms	20.8°C	mod./brownish
2 Vol.	6.56	1.6	20.8	"
3 Vol	6.59	1.6	20.8	"

Start 1115
End 1127

Back for level 1130 - 1200

57 GE Bridgewater 9-20-00

Purge MW-6RR

TD	23.00
WL	11.87
	11.13

1 vol. = 0.041 x hd²
= 0.041 x 11.13 (2)²
= 1.8
3 vol = 1.8 x 3 = 5.4 gals

	pH	SC	T	Turb./color
Init 1	6.47	1.5	16.2	Slight/Brown
2	6.46	1.5	16.2	
1 Vol	6.50	1.5	16.5	Turb./Brown-Yellow
2 Vol	6.62	1.5	16.5	"
3 Vol	6.61	1.4	16.5	"

Start 1200
End 1225

Purge MW-4 2

TD 24.71
WL 10.15
14.56

1 vol = 0.041 x hd²
= 0.041 x 14.56 x (2)²
= 2.4
3 vols = 2.4 x 3 = 7.2

	pH	SC	T	Turb/color
Init	6.79	1.8	21.3	Clear
2	6.77	1.8	21.4	Clear
1 Vol	6.61	2.1	19.3	Brown Moderate turbidity
2 Vol.	6.71	2.0	11.3	Brown Moderate Turbidity
3 Vol.	6.66	1.9	18.8	Brown Clear

Start: 1234
End: 1254

Purge MW-8AR

TD 25.95
WL 12.51
13.44

1 WL = 0.041 x hd²
= 0.041 x 13.44 (2)²
= 2.2
3 vol = 2.2 x 3 = 6.6

	pH	SC	T	Turb/color
Init	6.42	2.1 ms	18.1°C	low/yellowish
2	6.36	2.0	18.4°C	"
1 Vol	6.43	1.8	18.3	mod/brownish
2 Vol	6.46	1.6	17.9	"
3 Vol	6.49	1.5	17.6	low/brownish

Start: 1308
End: 1322

Off-gas 1400 hrs

Doug Antrim
D.

Chesla Personnel: Dave Ausbaken
& Tom Licken
Arrive on-site 0900 hrs.
Weather: Cloudy, 50°, windy

-Sample MW-17 for T. Metals
Diss. Metals, and pH (BRMW17)

Start: 0925
End: 0927

Filtered @ 0934

-Sample MW-6RR for T. Metals
Dissolved Metals, and pH
(BRMW6RR)

Start: 0950
End: 0952

Filtered @ 0959

-Sample MW-4 for T. Metals,
Dissolved Metals and pH
(BRMW04)
Start: 1010
End: 1012

Filtered @ 1017

- Sample MW-8AR for T. Metals
Dissolved Metals and pH
(BRMW08AR)
Start: 1035
End: 1037

Filtered @ 1038

- Collected Field Blank sample
BRFB40 ~~near~~ adjacent to
MW-12A. Sample collected
for T. Metals, Dissolved Metals
and pH. Millipore Metals water
was poured directly into
sample containers. Dissolved
Metals sample filtered per usual

Start: 1110
End: 1111

Filtered @ 1112

Collected composite sample of drummed purge water (BRDR60). 7 drums were staged around the site. Composite sample was collected using a new disposable bailer. ½ of a bailer full of water was collected from each drum. The water was then composited in an empty, dry, Millipore water bottle (amber, 1 gal.) supplied by the lab. The water was then poured into a complete sample set. The dissolved metals sample was filtered per usual.

Start: 1120 End: 1135

Filtered @ 1144

Break for lunch 1145 - 1245

Return from lunch, pack coolers. Fill out COC. Call FedEx for pick-up #159

Doug Durbin

64 GE Bridgeville 9-22-00

Received confirmation from ENCHEM that sample coolers shipped 9-20 and 9-21 had arrived without any concerns. All samples from this event have now been confirmed to have arrived at ENCHEM safely.

Doug Ostrander

EQUIPMENT LOG BOOK NOTES

GE Bridgeville 6-9-00

2nd quarter water level measurements

-Solinst water level meter ser # 12263

3rd Qtr. Sampling Event

- Solinst Water Level Meter Ser # 12263

- pH Meter - Cole Parmer Model 5938-00, Ser # L92001916
  Buffers: 4 Fischer Sc. Exp. 12/01
  7 " " "
  10 " " "

- SC Meter - Cole Parmer Model 1481-55
  Ser # 119168
  NIST STD - 1000 umhos
  Test Cent @ 998 umhos
  Exp 6/27/01

- Thermocouple Thermometer Cole Parmer Model 8508-20
  Ser # K9200 1616
  Cert exp on 8/21/01

Initial Calibration

pH Meter

7.0 buffer: 6.81 @ 22.2°C
adjust up to 7.0
4.0 buffer 4.25 @ 22.2°C
adjust down to 4.0

SC Meter

996 ~~1000~~ µmhos STD: 1410 µS
@ 22.2°C. Adjust down
to 1000 µS

End of Day Calibration

pH Meter

7.0 buffer: 7.11 @ 25.2°C
adjust down to 7.0
4.0 buffer: 3.97 @ 26.1°C
adjust up to 4.0

SC Meter

996 ~~1000~~ µmhos STD: 0.8 mS @ 23.9°C
adjust up to 1.0 mS

- 1 L, 90 mm diameter membrane 0.45 µm cellulose acetate polystyrene disposable (1/sample)

- GAST 0.1-liter vacuum pump. Model #ROA-P184AA, 115 V

- Clear Tygon tubing

Initial Calibration

pH Meter

7.0 buffer: 6.98 @ 19.5°C
adjust Temp correction. Adjust up to 7.00
4.0 buffer: 3.99 @ 19.5°C
adjust up to 4.00

SC Meter

996 ~~1000~~ µmhos STD: adjust temp
to 19.7°C. Adjust up to
996. Various readings

GE Bridgewater 9-19-00

Mid-Day Calibration

pH Meter

7.0 buffer: 23.3° adjust Temp. reads 6.88. Adjust up to 7.0

4.0 buffer: Reads 4.05 adjust down to 4.0

SC Meter: Temp reads 19.7 adjust up to 21.6°C

996 umhos STD: Adjust down to read 1.0 mS

End of Day Calibration

pH Meter

7 buffer: 7.02 @ 24.0°C adjust down to 7.00

4 buffer: 4.00 @ 23.8°C

SC Meter

Adjust to 22.3°C. Reads 1.0 mS. w/ 996 umhos Std

GE Bridgewater 9-20-00

Initial Calibration

pH Meter

7.0 buffer: reads 19.2°C adjust temp. Meter reads 7.02 adjust down to 7.0

4.0 buffer: reads 3.98, adjust up to 4.0

SC Meter

Reads 22.5°C adjust down to 18.1° 996 umhos STD reads 1.1 mS, adjust down to 1.0 mS

End of the Day Calibration

pH Meter

7.0 buffer: reads 27.6°C adjust temp. Meter reads 6.85. Adjust up to 7.0

4.0 buffer reads 4.07. Adjust down to 4.0

SC Meter

Reads 17.5°C, Adjust to 22.4°C

996 umhos STD: Read 1.0 mS

APPENDIX B
MONITORING WELL SAMPLING REPORTS

CHESTER ENGINEERS

MONITORING WELL SAMPLING REPORT

Project Name:	GE-Bridgeville	Well Number:	MW-1R
Project Number:	5331-05	Date Collected:	9/19/00
Location:	North of 3-Story brick Building	Time Collected:	0925
Sampling Team:	T. Licker / D. Dusbiber		

WELL INFORMATION

Water Level Measurement:	5.48	Total Depth	24.83	Linear Feet:	19.35
Was Well Locked or Sealed?	Locked				
Was Protection In Place?	Protective Metal Casing				
Length of Stick-up to Survey Point:	Flush-mounted				
Condition of Well Collar:	Good				
Weather Conditions:	clear, 70s				

Comments (odors, noises, conditions around well, ongoing activities, foreign objects in well, etc.)

PURGE INFORMATION

Sample Identification:	BRMW01R	Date Purged:	9/18/00
Start Time:	1450	Static Water Level Before Purge:	5.48
One Purge Volume:	3.2 gal	Total Purge Volume:	9.6
Total Purge Time:	20 minute		

Initial Purge Sample

pH	sc	T	color/turbidity
	ms	° C	
6.41	0.80	18.1	Low
6.41	0.80	18.2	Yellow

First Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.29	0.80	16.4	low
			Yellow Orange

Second Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.26	0.79	16.4	low
			clear

Third Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.27	0.80	16.4	Clear

Fourth Purge Volume

pH	SC	T	color/turbidity

Volume of Sample (bottle types, sizes and number of bottles): Total no. of bottles - 3

2-1,000 ml plastic w/HNO3
1-250 ml plastic

EQUIPMENT INFORMATION

Equipment Name	Equipment Number/Model
pH meter Cole Parmer	L92001916/5938-00
SC meter Cole Parmer	1191168/1481-55
Temp meter	8528-20
Water Level meter Solinst	101-250'/12263
Teflon disposable bailer and polypropylene cord	

LABORATORY INFORMATION

Analytical Laboratory: En Chem	Date Sent to Lab: 9/19/00
Chain of Custody No.:51014	Request for Analysis No.:

CHESTER ENGINEERS

MONITORING WELL SAMPLING REPORT

Project Name:	GE-Bridgeville	Well Number:	MW-2
Project Number:	5331-05	Date Collected:	09/19/00
Location:	East of Bituminous Drive	Time Collected:	1050
Sampling Team:	T. Licker / DM Dusbiber		

WELL INFORMATION

Water Level Measurement:	16.79	Total Depth	38.88	Linear Feet	22.09
Was Well Locked or Sealed?	Locked				
Was Protection In Place?	Protective metal casing				
Length of Stick-up to Survey Point:	.83'				
Condition of Well Collar:	Good				
Weather Conditions:	40s				

Comments (odors, noises, conditions around well, ongoing activities, foreign objects in well, etc.)
Riser Cracked @ surface.

SAMPLE INFORMATION

Sample Identification:	BRMW02	Date Purged	09/18/00
Static Water Level Before Purge: '	16.79	Total Purge Time:	30 min
Purge Equipment:	Teflon bailer, polypro. cord, pH & SC meters	One Purge Volume:	3.5 gallons
Total Purge Volume:	10.8 gallon Start Time:	1540	

Initial Purge Sample

pH	SC	T	color/turbidity
	ms	° C	
6.55	0.88	16.8	clear
6.42	0.85	16.9	clear

First Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.61	0.85	16.5	Brownish
			high

Second Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.55	0.41	16.5	brownish
			high

Third Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.58	0.40	16.7	lt.brown
			high

Fourth Purge Volume

pH	SC	T	color/turbidity

Volume of Sample (bottle types, sizes and number of bottles): Total no. of bottles - 6
4-1,000 plastic w/HNO3
2-250 ml plastic

EQUIPMENT INFORMATION

Equipment Name	Equipment Number/Model
pH meter Cole Parmer	L92001916/5938-00
SC meter Cole Parmer	1191168/1481-55
Temp meter	8528-20
Water Level meter Solinst	101-250'/12263
Teflon disposable bailer and polypropylene cord	

LABORATORY INFORMATION

Analytical Laboratory:En Chem	Date Sent to Lab: 9/19/00
Chain of Custody No.:51014	Request for Analysis No.:

CHESTER ENGINEERS

MONITORING WELL SAMPLING REPORT

Project Name:	GE-Bridgeville	Well Number:	MW-03
Project Number:	5331-05	Date Collected:	Sept 20, 2000
Location:	East of Bituminous Drive	Time Collected:	0815
Sampling Team:	T. Licker / DM Dusbiber		

WELL INFORMATION

Water Level Measurement:	6.44	Total Depth	22.89	Linear Feet	16.45
Was Well Locked or Sealed?	Locked				
Was Protection In Place?	Protective metal casing				
Length of Stick-up to Survey Point:	.83'				
Condition of Well Collar:	Good				
Weather Conditions:	40s				

Comments (odors, noises, conditions around well, ongoing activities, foreign objects in well, etc.)

Riser Cracked @ surface.

SAMPLE INFORMATION

Sample Identification:	BRMW02	One Purge Volume:	2.7
Static Water Level Before Purge: '	6.44	Total Purge Time:	35 min
Purge Equipment:	Teflon bailer, polypro. cord, pH & SC meters	Date Purged	09/19/00
Total Purge Volume:	8.1 gal	Start Time:	1320

Initial Purge Sample

pH	SC	T	color/turbidity
	ms	° C	
6.21	1.6	17.6	clear
6.39	1.7	17.7	yellowish

First Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.35	1.5	16.4	Brownish
			moderate

Second Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.57	1.6	16	brownish
			moderate

Third Purge Volume

pH	SC	T	color/turbidity
Well Dry	Well Dry	Well Dry	Well Dry

Fourth Purge Volume

pH	SC	T	color/turbidity

Volume of Sample (bottle types, sizes and number of bottles): Total no. of bottles - 6

4-1,000 plastic w/HNO3

2-250 ml plastic

EQUIPMENT INFORMATION

Equipment Name	Equipment Number/Model
pH meter Cole Parmer	L92001916/5938-00
SC meter Cole Parmer	1191168/1481-55
Temp meter	8528-20
Water Level meter Solinst	101-250'/12263
Teflon disposable bailer and polypropylene cord	

LABORATORY INFORMATION

Analytical Laboratory: En Chem	Date Sent to Lab: 9/20/00
Chain of Custody No.: 52541	Request for Analysis No.:

CHESTER ENGINEERS

MONITORING WELL SAMPLING REPORT

Project Name:	GE-Bridgeville	Well Number:	MW-4
Project Number:	5331-05	Date Collected:	09/21/00
Location:	Eastern Area of Plant Property	Time Collected:	1010
Sampling Team:	T. Licker, DM Dusbiber		

WELL INFORMATION

Water Level Measurement:	10.15	Total Depth	24.71	Linear Feet	14.56
Was Well Locked or Sealed?	Locked				
Was Protection In Place?	Protective metal casing				
Length of Stick-up to Survey Point:	Flush-mounted				
Condition of Well Collar:	Good				
Weather Conditions:	60s				

Comments (odors, noises, conditions around well, ongoing activities, foreign objects in well, etc.)

PURGE INFORMATION

Sample Identification:	BRMW04	Date Purged:	9/20/00
Start Time:	1234	Static Water Level Before Purge:	10.15
One Purge Volume:	2.4 gallons	Total Purge Volume:	7.2 gallons
Total Purge Time:	20 minute		

Initial Purge Sample

pH	SC	T	color/turbidity
	ms	° C	
6.79	1.8	21.3	clear/
6.77	1.8	21.4	low

First Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.67	2.1	19.3	Brown
			Moderate

Second Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.71	2.0	19.3	cloudy/
			mod

Third Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.66	1.9	18.8	Clear

Fourth Purge Volume

pH	SC	T	color/turbidity

Volume of Sample (bottle types, sizes and number of bottles): Total no. of bottles - 3

2-1,000 ml plastic w/HNO3
1-250ml plastic

EQUIPMENT INFORMATION

Equipment Name	Equipment Number/Model
pH meter Cole Parmer	L92001916/5938-00
SC meter Cole Parmer	1191168/1481-55
Temp meter	8528-20
Water Level meter Solinst	101-250'/12263
Teflon disposable bailer and polypropylene cord	

LABORATORY INFORMATION

Analytical Laboratory: En Chem	Date Sent to Lab: 9/21/00
Chain of Custody Number : 56743	Request for Analysis No.:

CHESTER ENGINEERS

MONITORING WELL SAMPLING REPORT

Project Name:	GE-Bridgeville	Well Number:	MW-6RR
Project Number:	5331-05	Date Collected:	09/21/00
Location:	Southwest of concrete cullet pad	Time Collected:	950
Sampling Team:	D. Dusbiber, T. Licker		

WELL INFORMATION

Water Level Measurement:	11.83	Total Depth:	23	Linear Feet	11.17
Was Well Locked or Sealed?	Locked				
Was Protection In Place?	yes				
Length of Stick-up to Survey Point:	flush-mounted				
Condition of Well Collar:	good				
Weather Conditions:	60s				

Comments (odors, noises, conditions around well, ongoing activities, foreign objects in well, etc.)

Well was installed in August 1998 to replace MW-6R

PURGE INFORMATION

Sample Identification:	BRMW06RR	Date Purged:	9/20/00
Start Time:	1200	Static Water Level Before Purge:	11.83
One Purge Volume:	1.8 gallons	Total Purge Volume:	5.4 gallons
Total Purge Time:	25 minut		

Initial Purge Sample

pH	SC	T	color/turbidity
	ms	° C	
6.47	1.5	16.2	slight
6.46	1.5	16.2	Brown

First Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.5	1.5	16.5	High
			Brown/Yellow

Second Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.62	1.5	16.5	brownish/
			high

Third Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.61	1.4	16.5	brownish/
			high

Fourth Purge Volume

pH	SC	T	color/turbidity

Volume of Sample (bottle types, sizes and number of bottles): Total no. of bottles - 3

2-1,000 plastic w/HNO3

1-250 ml plastic

EQUIPMENT INFORMATION

Equipment Name	Equipment Number/Model
pH meter Cole Parmer	L92001916/5938-00
SC meter Cole Parmer	1191168/1481-55
Temp meter	8528-20
Water Level meter Solinst	101-250'/12263
Teflon disposable bailer and polypropylene cord	

LABORATORY INFORMATION

Analytical Laboratory: En Chem	Date Sent to Lab: 9/21/00
Chain of Custody No.: 56743	Request for Analysis No.:

CHESTER ENGINEERS

MONITORING WELL SAMPLING REPORT

Project Name:	GE-Bridgeville	Well Number:	MW-7
Project Number:	5331-05	Date Collected:	9/20/00
Location:	East of Bldg. #15	Time Collected:	0940
Sampling Team:	T. Licker / DM Dusbiber		

WELL INFORMATION

Water Level Measurement:	8.97	Total Depth	26.75	Linear Feet	17.78
Was Well Locked or Sealed?	Locked				
Was Protection In Place?	New protective metal casing				
Length of Stick-up to Survey Point:	Flush-mounted				
Condition of Well Collar:	Good, however, one bolt sheered-off				
Weather Conditions:	60s				

Comments (odors, noises, conditions around well, ongoing activities, foreign objects in well, etc.)

PURGE INFORMATION

Sample Identification:	BRMW07	Date Purged:	9 /19/00
Start Time:	1526	Static Water Level Before Purge:	8.97
One Purge Volume:	2.90 gallons	Total Purge Volume:	8.7 gallons
Total Purge Time:	21 min		

Initial Purge Sample

pH	SC	T	color/turbidity
	ms	° C	
6.34	1.5	16.4	Clear
6.35	1.5	16.5	

Third Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.83	1.5	16.3	High
			Yellow

First Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.65	1.5	16.5	low
			Yellow

Second Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.85	1.5	16.4	low
			Yellow

Volume of Sample (bottle types, sizes and number of bottles): Total no. of bottles - 3

2-1,000 plastic w/HNO3
1-250 ml plastic

EQUIPMENT INFORMATION

Equipment Name	Equipment Number/Model
pH meter Cole Parmer	L92001916/5938-00
SC meter Cole Parmer	1191168/1481-55
Temp meter	8528-20
Water Level meter Solinst	101-250'/12263
Teflon disposable bailer and polypropylene cord	

LABORATORY INFORMATION

Analytical Laboratory: En Chem	Date Sent to Lab: 9/20/00
Chain of Custody No.: 52541	Request for Analysis No.:

CHESTER ENGINEERS

MONITORING WELL SAMPLING REPORT

Project Name:	GE-Bridgeville	Well Number:	MW-8AR
Project Number:	5331-05	Date Collected:	09/20/00
Location:	Near Loading Docks	Time Collected:	1035
Sampling Team:	T. Licker, D. Dusbiber		

WELL INFORMATION

Water Level Measurement:	12.51	Total Depth	25.95	Linear Feet	13.44
Was Well Locked or Sealed?	sealed				
Was Protection In Place?	yes				
Length of Stick-up to Survey Point:	Flush-mounted				
Condition of Well Collar:	good				
Weather Conditions:	70s				

Comments (odors, noises, conditions around well, ongoing activities, foreign objects in well, etc.)

Water was foaming during purging and sampling

PURGE INFORMATION

Sample Identification:	BRMW08AR	Date Purged:	09/19/00
Start Time:	1308	Static Water Level Before Purge:	12.51
One Purge Volume:	2.2 gallons	Total Purge Volume:	6.6 gallons
Total Purge Time:	14 minute		

Initial Purge Sample

PH	SC	T	color/turbidity
	ms	° C	
6.42	2.1	18.1	Yellowish
6.36	2	18.4	low

First Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.43	1.8	18.3	brownish/
			mod.

Second Purge Volume

pH	ms	° C	color/turbidity
6.46	1.6	17.9	brown/
			Moderate

Third Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.49	1.5	17.6	brown /
			Low

Fourth Purge Volume

pH	SC	T	color/turbidity

Second Purge Volume

pH	SC	T	color/turbidity

Volume of Sample (bottle types, sizes and number of bottles): Total no. of bottles - 3

2-1,000 plastic w/HNO3
1-1,000 ml plastic

EQUIPMENT INFORMATION

Equipment Name	Equipment Number/Model
SC meter Cole Parmer	1191168/1481-55
pH meter Cole Parmer	L92001916/5938-00
Temp meter	8528-20
Water Level meter Solinst	101-250'/12263
Teflon disposable bailer and polypropylene cord	

LABORATORY INFORMATION

Analytical Laboratory: En Chem	Date Sent to Lab: 9/20/00
Chain of Custody No.: 56743	Request for Analysis No.:

CHESTER ENGINEERS

MONITORING WELL SAMPLING REPORT

Project Name:	GE-Bridgeville	Well Number:	MW-12A
Project Number:	5331-04	Date Collected:	9/20/00
Location:	West of Cyclops Steel Bldg	Time Collected:	1015
Sampling Team:	T.Licker, DM Dusbiber		

WELL INFORMATION

Water Level Measurement:	13.94	Total Depth	25.03 Linear Feet	11.09
Was Well Locked or Sealed?	Locked			
Was Protection In Place?	Yes			
Length of Stick-up to Survey Point:	Flush-mounted			
Condition of Well Collar:	good			
Weather Conditions:	60s			

Comments (odors, noises, conditions around well, ongoing activities, foreign objects in well, etc.)

SAMPLE INFORMATION

Sample Identification:	BRMW16	One Purge Volume:	1.8 gallons
Static Water Level Before Purge:	13.94	Total Purge Time:	13 minutes
Purge Equipment:	Teflon bailer, polypro. cord, pH & SC meters	Date Purged	09/19/00
Total Purge Vol;	5.4 Gal. Start Time:	1625	

Initial Purge Sample

pH	SC	T	color/turbidity
	ms	° C	
6.64	1.2	17.9	Clear with
6.62	1.2	17.7	red suspended
			solids.

First Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.53	1.4	17.6	Clear with
			red suspended
			solids.

Second Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.56	1.4	17.4	Slight
			Yellow

Third Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.64	1.3	17.4	Clear
			low

Volume of Sample (bottle types, sizes and number of bottles): Total no. of bottles - 3

2-1,000 plastic w/HNO3
1-250 ml plastic

EQUIPMENT INFORMATION

Equipment Name	Equipment Number/Model
pH meter Cole Parmer	L92001916/5938-00
SC meter Cole Parmer	1191168/1481-55
Temp meter	8528-20
Water Level meter Solinst	101-250'/12263
Teflon disposable bailer and polypropylene cord	

LABORATORY INFORMATION

Analytical Laboratory: En Chem	Date Sent to Lab: 9/20/00
Chain of Custody No.: 52541	Request for Analysis No.:

CHESTER ENGINEERS

MONITORING WELL SAMPLING REPORT

Project Name:	GE-Bridgeville	Well Number:	MW-15R
Project Number:	5331-04	Date Collected:	09/19/00
Location:	North of 3-Story Buildi	Time Collected:	0900
Sampling Team:	T. Licker / DM Dusbiber		

WELL INFORMATION

Water Level Measurement:	11.04	Total Depth	31.81	Linear Feet	20.77
Was Well Locked or Sealed?	Locked				
Was Protection In Place?	Protective metal casing				
Length of Stick-up to Survey Point:	3.63'				
Condition of Well Collar:	Good				
Weather Conditions:	60s, clear				

Comments (odors, noises, conditions around well, ongoing activities, foreign objects in well, etc.)

slight septic odor during purging

PURGE INFORMATION

Sample Identification:	BRMW15R	Date Purged:	09/18/00
Start Time: 1422		Static Water Level Before Purge:	11.04
One Purge Volume:	3.4 gallons	Total Purge Volume:	10.2 gal
Total Purge Time:	28 minutes		

Initial Purge Sample

pH	SC	T	color/turbidity
	µ	° C	
5.97	185	17.1	clear/
6.03	0.71	17.5	low

First Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.3	0.70	17	clear /
			low

Second Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.36	0.71	16.8	clear /
			low

Third Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.47	0.68	17.0	clear/
			low

Fourth Purge Volume

pH	SC	T	color/turbidity

Volume of Sample (bottle types, sizes and number of bottles): Total no. of bottles - 3

2-1,000 ml plastic w/HNO3

1-250 ml plastic

EQUIPMENT INFORMATION

Equipment Name	Equipment Number/Model
pH meter Cole Parmer	L92001916/5938-00
SC meter Cole Parmer	1191168/1481-55
Temp meter	8528-20
Water Level meter Solinst	101-250'/12263
Teflon disposable bailer and polypropylene cord	

LABORATORY INFORMATION

Analytical Laboratory: Enchem	Date Sent to Lab: 9/19/00
Chain of Custody No.:51014	Request for Analysis No.:

CHESTER ENGINEERS

MONITORING WELL SAMPLING REPORT

Project Name:	GE-Bridgeville	Well Number:	MW-16
Project Number:	5331-05	Date Collected:	9/20/00
Location:	West of Cyclops Steel Bldg	Time Collected:	1550
Sampling Team:	T.Licker, DM Dusbiber		

WELL INFORMATION

Water Level Measurement:	6.45	Total Depth	17.91	Linear Feet	11.46
Was Well Locked or Sealed?	Locked				
Was Protection In Place?	Yes				
Length of Stick-up to Survey Point:	Flush-mounted				
Condition of Well Collar:	good				
Weather Conditions:	60s				

Comments (odors, noises, conditions around well, ongoing activities, foreign objects in well, etc.)

SAMPLE INFORMATION

Sample Identification:	BRMW16	One Purge Volume:	1.9 gallons
Static Water Level Before Purge:	6.45	Total Purge Time:	25 minutes
Purge Equipment:	Teflon bailer, polypro. cord, pH & SC meters	Date Purged	09/19/00
Total Purge Vol:	5.7 Gal.	Start Time:	1550

Initial Purge Sample

pH	SC	T	color/turbidity
	ms	° C	
6.06	1.4	19.4	slight
6.03	1.4	19.5	Yellow

First Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.06	1.4	21.5	slight
			Yellow

Second Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.15	1.5	20.5	Moderate
			Gray

Third Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.23	1.5	20.1	gray/
			low

pH	SC	T	color/turbidity

pH	SC	T	color/turbidity

Volume of Sample (bottle types, sizes and number of bottles): Total no. of bottles - 3

2-1,000 plastic w/HNO3

1-250 ml plastic

EQUIPMENT INFORMATION

Equipment Name	Equipment Number/Model
pH meter Cole Parmer	L92001916/5938-00
SC meter Cole Parmer	1191168/1481-55
Temp meter	8528-20
Water Level meter Solinst	101-250'/12263
Teflon disposable bailer and polypropylene cord	

LABORATORY INFORMATION

Analytical Laboratory: En Chem	Date Sent to Lab: 9/20/00
Chain of Custody No.: 52541	Request for Analysis No.:

CHESTER ENGINEERS

MONITORING WELL SAMPLING REPORT

Project Name:	GE-Bridgeville	Well Number:	MW-17
Project Number:	5331-05	Date Collected:	9/21/00
Location:	West of Cyclops Steel Bldg	Time Collected:	0925
Sampling Team:	T.Licker, DM Dusbiber		

WELL INFORMATION

Water Level Measurement:	3.55	Total Depth	15.91	Linear Feet	12.36
Was Well Locked or Sealed?	Locked				
Was Protection In Place?	Yes				
Length of Stick-up to Survey Point:	Flush-mounted				
Condition of Well Collar:	good				
Weather Conditions:	60s				

Comments (odors, noises, conditions around well, ongoing activities, foreign objects in well, etc.)

SAMPLE INFORMATION

Sample Identification:	BRMW17	One Purge Volume:	2.3 gallons
Static Water Level Before Purge:	3.55	Total Purge Time:	23 minutes
Purge Equipment:	Teflon bailer, polypro. cord, pH & SC meters	Date Pruged	09/20/00
Total Purge Vol:	6 Gal.	Start Time:	1115

Initial Purge Sample

pH	SC	T	color/turbidity
	ms	° C	
6.36	1.5	18.0	Low
6.38	1.5	18.1	Clear

First Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.51	1.6	20.8	Moderate
			Brown

Second Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.56	1.6	20.8	Moderate
			brown
'* SC measurements suspect			

Third Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.59	1.6	20.8	Brown
			Moderate

pH	SC	T	color/turbidity

pH	SC	T	color/turbidity

Volume of Sample (bottle types, sizes and number of bottles): Total no. of bottles - 3

2-1,000 plastic w/HNO3
1-250 ml plastic

EQUIPMENT INFORMATION

Equipment Name	Equipment Number/Model
pH meter Cole Parmer	L92001916/5938-00
SC meter Cole Parmer	1191168/1481-55
Temp meter	8528-20
Water Level meter Solinst	101-250'/12263
Teflon disposable bailer and polypropylene cord	

LABORATORY INFORMATION

Analytical Laboratory: En Chem	Date Sent to Lab: 9/21/99
Chain of Custody No.: 56743	Request for Analysis No.:

CHESTER ENGINEERS

MONITORING WELL SAMPLING REPORT

Project Name:	GE-Bridgeville	Well Number:	MW-20 MS, MSD
Project Number:	5331-05	Date Collected:	09/20/00
Location:	Adjacent to and north of Chartier's Crk	Time Collected:	0910
Sampling Team:	T. Licker / DM Dusbiber		

WELL INFORMATION

Water Level Measurement:	6.56	Total Depth	16.26	Linear Feet:	9.7
Was Well Locked or Sealed?	Locked				
Was Protection In Place?	Protective metal casing				
Length of Stick-up to Survey Point:	1.70'				
Condition of Well Collar:	Good				
Weather Conditions:	60s				

Comments (odors, noises, conditions around well, ongoing activities, foreign objects in well, etc.)

Silty Bottom

Collected MS & MSD at this well.

PURGE INFORMATION

Sample Identification:	BRMW20	Date Purged:	9/19/00
Start Time:	1445	Static Water Level Before Purge:	6.56'
One Purge Volume:	1.6	Total Purge Volume:	4.8 gal
Total Purge Time:	15 minute		

Initial Purge Sample

pH	SC	T	color/turbidity
	ms	° C	
6.67	1.7	30	orange tint
6.77	1.7	29.9	low

First Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.79	1.7	26.9	orange-brown/
			moderate

Second Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.9	1.7	25.8	orange-brown
			Moderate

Third Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.89	1.8	26.2	orange-brown/
			moderate

Fourth Purge Volume

pH	SC	T	color/turbidity

Volume of Sample (bottle types, sizes and number of bottles): Total no. of bottles - 9

6-1,000 plastic w/HNO3

3-250 ml plastic

EQUIPMENT INFORMATION

Equipment Name	Equipment Number/Model
pH meter Cole Parmer	L92001916/5938-00
SC meter Cole Parmer	1191168/1481-55
Temp meter	8528-20
Water Level meter Solinst	101-250'/12263
Teflon disposable bailer and polypropylene cord	

LABORATORY INFORMATION

Analytical Laboratory: En Chem	Date Sent to Lab: 9/20/00
Chain of Custody No.: 52541	Request for Analysis No.:

CHESTER ENGINEERS

MONITORING WELL SAMPLING REPORT

Project Name:	GE-Bridgeville	Well Number:	MW-21
Project Number:	5331-05	Date Collected:	9/20/00
Location:	Across Chartier's Creek	Time Collected:	0840
Sampling Team:	T. Licker, DM Dusbiber		

WELL INFORMATION

Water Level Measurement:	4.2	Total Depth	11.33	Linear Feet	7.13
Was Well Locked or Sealed?	Locked				
Was Protection In Place?	Protective stainless steel casing				
Length of Stick-up to Survey Point:	3.0'				
Condition of Well Collar:	Good				
Weather Conditions:	60s				

Comments (odors, noises, conditions around well, ongoing activities, foreign objects in well, etc.)

SAMPLE INFORMATION

Sample Identification:	BRMW21	One Purge Volume:	1.2 gallons
Static Water Level Before Purge:	4.2'	Total Purge Time:	10 minutes
Purge Equipment:	Teflon bailer, polypro. cord, pH & SC meters	Date Purged	09/19/00
Total Purge Volume:	3.6 gallon	Start Time:	1415

Initial Purge Sample

pH	SC	T	color/turbidity
	ms	° C	
6.63	1.8	16.9	clear
6.7	1.8	17.2	

First Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.68	1.8	15.7	moderate
			brown

Second Purge Volume

pH	SC	T	color/turbidity
	ms	° C	
6.65	1.8	15.6	moderate
			brown

Third Purge Volume

pH	SC	T	color/turbidity
DRY	ms		

Fourth Purge Volume

pH	SC	T	color/turbidity

Volume of Sample (bottle types, sizes and number of bottles): Total no. of bottles - 3

2-1,000 plastic w/HNO3
1-250 ml plastic

EQUIPMENT INFORMATION

Equipment Name	Equipment Number/Model
pH meter Cole Parmer	L92001916/5938-00
SC meter Cole Parmer	1191168/1481-55
Temp meter	8528-20
Water Level meter Solinst	101-250'/12263
Teflon disposable bailers and polypropylene cord	

LABORATORY INFORMATION

Analytical Laboratory: En Chem	Date Sent to Lab: 9/20/00
Chain of Custody No.: 52541	Request for Analysis No.:

APPENDIX C
CHAIN OF CUSTODY DOCUMENTATION

(Please Print Legibly)

Company Name: Stantec Engineers

Branch or Location: Pittsburgh, PA

Project Contact: Doug Dusbiber

Telephone: 412 269-5824

Project Number: 5331-05

Project Name: GE Bridgeville Glass Plant

Project State: PA

Sampled By (Print): Doug Dusbiber / Tom Lickey

Data Package Options (please circle if requested)

QC Summary	Surcharge	Site-Specific QC Required?
EnChem Level II	Std. Delivery	Yes No
EnChem Level III	10% (min. $50)	(If yes, indicate QC sample and submit triplicate volume.)
EnChem Level IV	25% (min. $100)	

EN CHEM INC.

☐ 1241 Bellevue St., Suite 9, Green Bay, WI 54302, 920-469-2436 • 1-800-736-2436, FAX 920-469-8827

☒ 525 Science Drive, Madison, WI 53711, 608-232-3300 • 1-888-536-2436, FAX: 608-233-0502

☐ 1423 N. [illegible]eet, Suite 122, Superi[illegible] 54880, 715-392-5844 • 1-800-837-8238, FAX 715-392-5843

CHAIN OF CUSTODY

51014

Page 1 of 1

P.O. # _____ Quote # _____

Mail Report To: Russ Schlecht

Company: RMT Inc.

Address: 74 Perimeter Center East, Ste 7400, Atlanta, GA 30346

Invoice To: Same as above

Company: _____

Address: _____

Mail Invoice To: _____

*Preservation Codes: A=None B=HCL C=H2SO4 D=HNO3 E=EnCore F=Methanol G=NaOH

LABORATORY ID (Lab Use Only)	FIELD ID	COLLECTION DATE	COLLECTION TIME	Total Metals	Dissolved Metals	pH							MATRIX	COMMENTS	TOTAL BOTTLES (Lab Use Only)
				FILTERED? (YES/NO)	N	Y	N								
				PRESERVATION (CODE)*	D	D	A								
	BRMW15R	9-19-00	0900	X	X	X							W	Filtered @ 0905	
	BRMW01R		0925	X	X	X							W	Filtered @ 0932	
	BRMMFB50		0945		X			See attached sheet					W	Filtered @ 0946	
	BRRR30		1000	X	X	X		for metals list					W	Filtered @ 1003	
	BRMW02		1050	X	X	X		and PQLs					W	Filtered @ 1103	
	BRMW42		1200	X	X	X							W	Filtered @ 1210	

Turnaround Time Requested (TAT) (circle): ~~Std (10 Bus. Days)~~ Rush

(Rush TAT subject to approval/surcharge)

Quick Turn Number: _____

Date Needed: _____

Transmit Rush Results by (circle): Phone Fax

Phone #: _____

Fax #: _____

Samples on HOLD are subject to special pricing and release of liability

Std. TAT	Surcharge
1 day	3.0x
2 day	2.0x
3 day	1.5x
4 day	1.4x
5 day	1.3x

Matrix Codes
W=Water
S=Soil
A=Air
C=Charcoal
B=Biota
Sl=Sludge

Relinquished By:	Date/Time:	Received By:	Date/Time:	En Chem Project No.
Douglas M. Dusbiber	9-19-00 / 1230			
Relinquished By:	Date/Time:	Received By:	Date/Time:	Sample Receipt Temp.
Relinquished By:	Date/Time:	Received By:	Date/Time:	Sample Receipt pH (Wet/Metals)
Relinquished By:	Date/Time:	Received By:	Date/Time:	Custody Seal
Relinquished By:	Date/Time:	Received By:	Date/Time:	

(Please Print Legit)

Company Name: URS Engineers
Branch or Location: Pittsburgh, PA
Project Contact: Doug Dustbiber
Telephone: (412) 269-5824
Project Number: 5331-05
Project Name: GE Bridgeville Glass Plant
Project State: PA
Sampled By (Print): DMD / TL

Data Package Options (please circle if requested)

QC Summary	Surcharge	Site-Specific QC Required?
EnChem Level II	Std. Delivery	Yes No
EnChem Level III	10% (min. $50)	(If yes, indicate QC sample and submit triplicate volume.)
EnChem Level IV	25% (min. $100)	

EN CHEM INC.

1241 Bellevue St., Suite 9
Green Bay, WI 54302
920-469-2436 • 1-800-736-2436
FAX 920-469-8827

☒ 525 Science Drive
Madison, WI 53711
608-232-3300 • 1-888-536-2436
FAX: 608-233-0502

1423 [illegible] Street, Suite 122
Superior, WI 54880
715-392-5844 • 1-800-837-8238
FAX 715-392-5843

CHAIN OF CUSTODY

5254

Page 1 of 1

P.O. # _____ Quote # _____

Mail Report To: Russ Schlecht
Company: RMT, Inc.
Address: 74 Perimeter Center East, Ste 7400
Invoice To: Atlanta, GA 30346
Company: Same as above
Address: _____
Mail Invoice To: _____

*Preservation Codes: A=None B=HCL C=H2SO4 D=HNO3 E=EnCore F=Methanol G=NaOH

LABORATORY ID (Lab Use Only)	FIELD ID	COLLECTION DATE	COLLECTION TIME	Total Metals	Dissolved Metals	pH							MATRIX	COMMENTS	TOTAL BOTTLES (Lab Use Only)
				FILTERED? (YES/NO)		N	Y	N							
				PRESERVATION (CODE)*		D	D	A							
	BRMW03	9-20-00	0815	X	X	X							W	Filtered @ 0824	
	BRMW21	"	0840	X	X	X							W	Filtered @ 0855	
	BRMW20 MSD	"	0910	X	X	X	See attached sheet						W	Filtered @ 0928	
	BRMW20 MS	"	0910	X	X	X	for metals list						W	Filtered @ 0926	
	BRMW20	"	0910	X	X	X	and PQLs						W	Filtered @ 0924	
	BRMW07	"	0940	X	X	X							W	Filtered @ 0945	
	BRMW16	"	1000	X	X	X							W	Filtered @ 1005	
	BRMW12A	"	1015	X	X	X							W	Filtered @ 1023	

Turnaround Time Requested (TAT)
(circle): (Std (10 Bus. Days)) Rush
(Rush TAT subject to approval/surcharge)
Quick Turn Number: _____
Date Needed: _____
Transmit Rush Results by (circle):
Phone Fax
Phone #: _____
Fax #: _____

Samples on HOLD are subject to special pricing and release of liability

Std. TAT	Surcharge
1 day	3.0x
2 day	2.0x
3 day	1.5x
4 day	1.4x
5 day	1.3x

Matrix Codes
W=Water
S=Soil
A=Air
C=Charcoal
B=Biota
Sl=Sludge

Relinquished By:	Date/Time:	Received By:	Date/Time:
Douglas M Dustbiber	9-20-00/1300		
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:

En Chem Project No.:
Sample Receipt Temp.:
Sample Receipt pH (Wet/Metals):
Custody Seal:

(Please Print Legib')

Company Name: RMT Engineers

Branch or Location: Pittsburgh, PA

Project Contact: Doug Dusbiber

Telephone: 412 269-5834

Project Number: 5331-05

Project Name: GE Bridgeville Glass Plant

Project State: PA

Sampled By (Print): Doug Dusbiber / Tom Licker

Data Package Options (please circle if requested)

QC Summary	Surcharge	Site-Specific QC Required?
EnChem Level II	Std. Delivery	Yes No
EnChem Level III	10% (min. $50)	(If yes, indicate QC sample and submit triplicate volume.)
EnChem Level IV	25% (min. $100)	

EN CHEM INC.

1241 Bellevue St., Suite 9
Green Bay, WI 54302
920-469-2436 • 1-800-736-2436
FAX 920-469-8827

☒ 525 Science Drive
Madison, WI 53711
608-232-3300 • 1-888-536-2436
FAX: 608-233-0502

1423 N. [illegible]reet, Suite 122
Superior, WI 54880
715-392-5844 • 1-800-837-8238
FAX 715-392-5843

CHAIN OF CUSTODY

56743

Page 1 of 1

P.O. # _____ Quote # _____

Mail Report To: Russ Schlecht

Company: RMT, Inc.

Address: 74 Perimeter Center East, Ste 7400

Invoice To: Atlanta, GA 30346

Company: Same as above

Address: _____

Mail Invoice To: _____

*Preservation Codes: A=None B=HCL C=H2SO4 D=HNO3 E=EnCore F=Methanol G=NaOH

LABORATORY ID (Lab Use Only)	FIELD ID	COLLECTION DATE	COLLECTION TIME	ANALYSES REQUESTED: T. Metals	Dissolved Metals	pH							MATRIX	COMMENTS	TOTAL BOTTLES (Lab Use Only)
	BRMW17	9-31-00	0925	X	X	X								Filtered @ 0934	
	BRMW6RR	"	0950	X	X	X	*See attached sheet for metals list and PQLs							" 0959	
	BRMW04	"	1010	X	X	X								" 1017	
	BRMW08AR	"	1035	X	X	X								" 1038	
	BRFB40	"	1110	X	X	X								" 1112	
	BRDR60	"	1120	X	X	X								" 1144	

Turnaround Time Requested (TAT)
(circle): (Std (10 Bus. Days)) Rush
(Rush TAT subject to approval/surcharge)
Quick Turn Number: _____
Date Needed: _____
Transmit Rush Results by (circle):
Phone Fax
Phone #: _____
Fax #: _____

Samples on HOLD are subject to special pricing and release of liability

Std. TAT	Surcharge
1 day	3.0x
2 day	2.0x
3 day	1.5x
4 day	1.4x
5 day	1.3x

Matrix Codes
W=Water
S=Soil
A=Air
C=Charcoal
B=Biota
SL=Sludge

Relinquished By:	Date/Time:	Received By:	Date/Time:	En Chem Project No.
Doug M Dusbiber	9-31-00 1300			
Relinquished By:	Date/Time:	Received By:	Date/Time:	Sample Receipt Temp.
Relinquished By:	Date/Time:	Received By:	Date/Time:	Sample Receipt pH (Metals)
Relinquished By:	Date/Time:	Received By:	Date/Time:	Custody Seal
Relinquished By:	Date/Time:	Received By:	Date/Time:	

Fourth Quarter 2000 Water Level Measurements
(Chester)

CHESTER ENGINEERS

Ref. No. 5331-05

December 28, 2000

Mr. Matt Augustine
Environmental Health and
Safety Engineer
GE Company - Bridgeville Glass Plant
Mayer Street
Bridgeville, Pennsylvania 15017

Dear Mr. Augustine:

Re: GE - Bridgeville
Fourth Quarter 2000 Water Level Measurements

As part of the present groundwater monitoring program, fourth quarter water level measurements were conducted at all site monitoring wells on December 28, 2000. Water levels within the groundwater collection sump and of Chartiers Creek were also measured. The attached table is a summary of these measurements and calculated elevations. The condition of each monitoring well was also noted during this activity.

If you have any questions or comments, please do not hesitate to contact me at 412-269-5824.

Sincerely,

Douglas M. Dusbiber
Senior Geologist

DMD/jdt/sw-761

Enclosure

cc/enc: Russell Schlecht, RMT

600 Clubhouse Drive
Pittsburgh, Pennsylvania 15108
412-269-5700; Fax 412-269-5749

TABLE 1

GROUNDWATER ELEVATIONS AND TOTAL WELL DEPTHS
GE LIGHTING COMPANY
BRIDGEVILLE PLANT

December 27, 2000

WELL IDENTIFICATION	PVC RISER ELEVATION (ft, NGVD)	DEPTH TO GROUND-WATER (ft)	GROUNDWATER ELEVATION (ft, NGVD)	MEASURED TOTAL DEPTH FROM TOP OF CASING (ft)	WELL CONDITION AND OBSERVATIONS
MW-1R	804.85	5.34	799.51	24.83	water in pro-casing, (1)
MW-2	815.87	16.63	799.24	38.91	Top of PVC casing starting to chip
MW-3	803.55	6.20	797.35	22.90	water in pro-casing
MW-4	805.87	9.88	795.99	24.86	water in pro-casing, silty @ well bottom, (1)
MW-5	809.09	11.25	797.84	23.45	water in pro-casing
MW-6RR	808.00	11.58	796.42	23.12	water in pro-casing, very silty @ well bottom
MW-7	807.77	9.37	798.40	26.75	(1)
MW-8R	811.12	dry	---	10.86	water in pro-casing, (1)
MW-8AR	811.22	12.26	798.96	26.03	water in pro-casing, silty @ well bottom, (1)
MW-9R	809.50	7.58	801.92	10.55	water in pro-casing, (1)
MW-10	809.02	9.86	799.16	17.04	water in pro-casing
MW-12	808.86	11.63	797.23	16.40	water in pro-casing, silty @ well bottom
MW-12A	809.06	13.82	795.24	25.05	water in pro-casing, silty @ well bottom
MW-14	809.55	dry	---	11.27	good condition
MW-15R	810.37	10.87	799.50	31.82	silty @ well bottom
MW-16	802.59	3.42	799.17	18.00	water in pro-casing, silty @ well bottom
MW-17	803.19	3.49	799.70	15.93	water in pro-casing, silty @ well bottom, (1)
MW-20	800.94	6.46	794.48	16.31	silty @ well bottom, cracked pad around well needs caulked
MW-21	798.39	4.63	793.76	11.35	good condition

OTHER LANDMARKS	ELEVATION (ft, NGVD)	DEPTH TO WATER (ft)	WATER ELEVATION (ft, NGVD)
Chartiers Creek (benchmark on steps)	804.86*	11.02	793.84
Groundwater Trench Sump	806.29	15.88	790.41

* Distance from benchmark to surface of Chartier's Creek.
(1) Flush-mounted cover has stripped, missing, or broken bolt, or broken bolt flange